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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/829,124	04/09/2001	Zhong-Min Wei	21829/101 (EBC-008)	2301

7590

05/24/2002

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EXAMINER

KUBELIK, ANNE R

ART UNIT

PAPER NUMBER

1638

DATE MAILED: 05/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/829,124

Applicant(s)

WEI ET AL.

Examiner

Anne Kubelik

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-89 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-89 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_                      6) ☐ Other: \_\_\_\_\_

***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-18, drawn to a nucleic acid encoding SEQ ID NO:2, expression vectors comprising the nucleic acid, and host cells and plants and plant parts transformed with the nucleic acid, classified in class 536, subclass 23.7, for example.
- II. Claims 19-22, drawn to a protein of SEQ ID NO:2, classified in class 530, subclass 350, for example.
- III. Claims 23-25, drawn to a method of topical application of a protein to impart disease resistance to a plant, classified in class 514, subclass 2, for example.
- III. Claims 26-28, drawn to a method of topical application of a protein to impart enhanced growth to a plant, classified in class 504, subclass 116.1, for example.
- IV. Claims 29-31, drawn to a method of topical application of a protein to impart insect resistance to a plant, classified in class 424, subclass 405, for example.
- V. Claims 32-34, drawn to a method of topical application of a protein to <sup>impart</sup>~~impart~~ stress resistance to a plant, classified in class 47, subclass 2, for example.
- VI. Claims 35-37, drawn to a method of topical application of a protein to ~~impart~~ inhibit post-harvest disease or desiccation to a fruit or a vegetable, classified in class 427, subclass 4, for example.
- VII. Claims 38-40 and 42-48, drawn to a method of topical application of a protein to ~~impart~~ inhibit desiccation of an ornamental plant cutting, classified in class 47, subclass 58.1, for example.

- VIII. Claim 41, drawn to a method of topical application of a protein to impart early flowering to an ornamental plant, classified in class 424, subclass 94.1.
- IX. Claim 49-50, drawn to composition comprising an ornamental plant cutting and a protein, classified in class 800, subclass 295, for example.
- X. Claim 51-53, drawn to a method of imparting disease resistance to a plant by transformation with a nucleic acid encoding SEQ ID NO:2, classified in class 800, subclass 279, for example.
- XI. Claim 54-56, drawn to a method of imparting enhanced growth to a plant by transformation with a nucleic acid encoding SEQ ID NO:2, classified in class 800, subclass 288, for example.
- XII. Claim 57-59, drawn to a method of imparting insect resistance to a plant by transformation with a nucleic acid encoding SEQ ID NO:2, classified in class 800, subclass 302, for example.
- XIII. Claim 60-62, drawn to a method of imparting stress resistance to a plant by transformation with a nucleic acid encoding SEQ ID NO:2, classified in class 800, subclass 289, for example.
- XIV. Claim 63-65, drawn to a method of imparting resistance to post-harvest diseases or desiccation to a fruit or vegetable by transformation with a nucleic acid encoding SEQ ID NO:2, classified in class 800, subclass 301, for example.
- XV. Claim 66-68 and 71-73, drawn to a method of inhibiting desiccation of a cutting by transformation of an ornamental plant with a nucleic acid encoding SEQ ID NO:2, classified in class 800, subclass 278, for example.

Art Unit: 1638

- XVI. Claim 69-70, drawn to a method of imparting early flowering to a plant by transformation with a nucleic acid encoding SEQ ID NO:2, classified in class 800, subclass 290, for example.
- XVII. Claim 74-80, drawn to a method to enhance growth of a plant by topically applying a protein to a plant or seed transformed with a nucleic acid encoding SEQ ID NO:2, classified in class 71, subclass 11, for example.
- XVIII. Claim 74-80, drawn to a method to enhance stress tolerance of a plant by topically applying a protein to a plant or seed transformed with a nucleic acid encoding SEQ ID NO:2, classified in class 47, subclass 2, for example.
- XIX. Claim 74-80, drawn to a method to enhance disease resistance of a plant by topically applying a protein to a plant or seed transformed with a nucleic acid encoding SEQ ID NO:2, classified in class 47, subclass 57.6, for example.
- XX. Claim 74-80, drawn to a method to enhance insect resistance of a plant by topically applying a protein to a plant or seed transformed with a nucleic acid encoding SEQ ID NO:2, classified in class 47, subclass 57.7, for example.

The inventions are distinct, each from the other because:

Inventions III-VIII and X-XX are unrelated to each other. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation and different effects. The different methods have different starting materials, different method steps and different end products.

Inventions I and II are unrelated. The different inventions have different functions. The first invention is distinct from the second invention because the former requires isolated DNA and methods for plant transformation and regeneration not required by the latter, while the latter requires isolated proteins not required by the former. Additionally, DNA and protein differ in composition, structure and function.

Inventions I and IX are unrelated. The different inventions have different functions. The plants of invention I are transgenic, while the cutting of invention IX is from a non-transgenic plant; thus the inventions differ in composition, structure and function.

Inventions II and IX are unrelated. The different inventions have different functions. The protein of invention II and the composition of invention IX differ in composition, structure and function.

Invention I and inventions X-XX are related as product and processes of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case each of inventions X-XX are different methods of using the nucleic acid and plants of invention I.

Invention II and inventions III-VIII and XVII-XX are related as product and processes of use. Each of inventions III-VIII and XVII-XX are different methods of using the protein of invention II.

Invention I and inventions III-VIII are unrelated to each other. The methods of inventions III-VIII do not use the nucleic acid or plants of invention I.

Invention II and inventions X-XVI are unrelated to each other. The methods of inventions X-XVI do not use the protein of invention II.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, fields of search, and classification, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

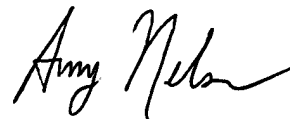
Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne R. Kubelik, whose telephone number is (703) 308-5059. The examiner can normally be reached Monday through Friday, 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson, can be reached at (703) 306-3218. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9307 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the patent analyst, Kimberly Davis, at (703) 305-3015.

Anne R. Kubelik, Ph.D.  
May 17, 2002



**AMY J. NELSON, PH.D.**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 1600**